

REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the above amendment and the following remarks.

Claim 8 has been canceled.

Claims 1-7 and 9 stand rejected, under 35 USC §102(e), as being anticipated by Tong et al. (US 2004/0114618). The Applicant respectfully traverses these rejections based on the points set forth below. References hereinbelow to the specification and drawings are for illustrative purposes only and are not intended to limit the scope of the invention to the referenced embodiments.

Claim 1 defines a communication terminal apparatus that relays communication data between a base station and another communication terminal. The relay is achieved by frequency division multiplexing the relay data with other data the communication terminal is ready to send and communicating all of the frequency division multiplexed data together. The claimed subject matter provides an advantage of reducing the power consumption drain of a communication terminal by only communicating the relay data when the communication terminal would otherwise be transmitting its own data (see specification page 3, line 5, through page 4, line 9).

As illustrated in Fig. 15, Tong discloses that each of two mobile terminals UE1 and UE2 transmits, in any one time slot, only its own data or relay data that it received from the other mobile terminal.

More specifically, Tong discloses that UE1 transmits relay data $S_2^{(1)}$ during each odd-numbered uplink time slot and transmits its own data $S_1^{(1)}$ during each even-numbered uplink time slot (see Tong paragraph [0060], lines 9-17). Similarly, UE2 transmits relay data $S_1^{*(2)}$

during each odd-numbered uplink time slot and transmits its own data $-S_2^{*(2)}$ during each even-numbered uplink time slot (see Tong paragraph [0060], lines 9-17). Tong's Figs. 16 and 17 similarly illustrate that mobile terminals UE1-UE4 transmit only their own data or relay data in a particular time slot.

It is noted that none of Tong's drawings illustrate, and Tong does not disclose, the claimed subject matter wherein a communication terminal multiplexes its own data with relay data for simultaneous transmission.

Accordingly, the Applicant respectfully submits that Tong does not anticipate the subject matter defined by claim 1. Independent claims 7 and 9 similarly recite the above-mentioned subject matter distinguishing apparatus claim 1 from the applied references, but claim 7 does so with respect to a method. Independent claims 4 and 6 define communication terminal apparatuses that receive the multiplexed transmission distinguishing claim 1 from Tong and, therefore, similarly distinguish over Tong's disclosure.

Therefore, allowance of claims 1, 4, 6, 7, and 9 and all claims dependent therefrom is deemed to be warranted.

To promote a better understanding of the differences between the claimed subject matter and Tong's disclosure, the Applicant provides the following additional remarks.

Features of claim 1 include performing frequency division multiplexing on data communicated between a base station and another communication terminal with data of a communication terminal and transmitting the multiplexed data at a transmission timing for the data of the communication terminal. The above-noted features provide advantages of enabling a communication terminal to relay communication between another communication terminal and

the base station and preventing power consumption of the communication terminal from increasing.

Tong discloses a technique related to virtual MIMO, and, according to Tong's disclosure, a plurality of mobile terminals, each provided with one transmission path and one antenna, form a group and a given mobile terminal in the group transmits transmission data of another mobile terminal together with other mobile terminals, to the base station, using shared resources in the mobile terminals in the group.

Claim 1 and Tong are similar at first glance in that a given communication terminal receives data of another communication terminal and transmits received data of another communication terminal. However, Tong does not disclose the above-mentioned features of claim 1 of performing frequency division multiplexing on data communicated between a base station and another communication terminal with data of a communication terminal and transmitting the data at a transmission timing for the data of the communication terminal.

Tong discloses forming a group by a plurality of mobile terminals and transmitting transmission data of a given mobile terminal in the group at the same time as the other mobile terminals in collaboration. By this means, it is possible to realize virtual MIMO using a plurality of mobile terminals each provided with one transmission path and one antenna. On the other hand, data of another mobile terminal is transmitted at a timing other than a transmission timing for transmission data of a mobile terminal, which increases power consumption of the mobile terminal. This contradicts the object of the present invention. Further, according to Tong, it is not clear how to relay data in downlink.

By contrast with this, according to claim 1, data transmitted at the transmission timing of the communication terminal includes transmission data of another communication terminal and transmission data of the communication terminal, and therefore different transmission data are transmitted at the same time. Furthermore, this applies not only to uplink but also to downlink.

In this way, claim 1 differs from Tong in configuration. Furthermore, the above-described features of claim 1 enable the communication terminal to relay communication between another communication terminal and the base station and prevent power consumption of the communication terminal from increasing. This effect can never be produced by Tong's system. As described above, the invention according to claim 1 is different from Tong both in configuration and effect.

Features of independent claim 6 include performing reception processing using an uplink frequency in a communication system employing an OFDM-FDD scheme and transmitting data of a communication terminal to another communication terminal using the uplink frequency. That is, the communication terminal apparatus according to claim 6 communicates with the base station through the communication terminal apparatus according to claim 1.

The communication system of claim 1 is different from Tong, and, therefore, Tong does not disclose the above feature of claim 6. Consequently, the invention according to claim 6 is different from Tong both in configuration and effect.

Furthermore, claims 7 and 9 similarly recite the distinguishing features discussed above in connection with claim 1, and, therefore, also distinguish over Tong's system both in configuration and effect for the above-described reasons.

In view of the above, it is submitted that this application is in condition for allowance, and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

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